

Claims

What is claimed is:

1. A semiconductor device mounting method comprising:
a semiconductor device having an electrode; and
a substrate having a wiring terminal, wherein
a width of one of the electrode and the wiring terminal is smaller than a width of the other of the electrode and the wiring terminal,
the semiconductor device is mounted on the substrate, and
pressure is mutually applied to the semiconductor device and the substrate so that the one of the electrode and the wiring terminal becomes embedded in a surface of the other of the electrode and the wiring terminal.
2. A semiconductor device mounting method in which a semiconductor device having an electrode is mounted on a substrate having a wiring terminal, wherein
a width of one of the electrode and the wiring terminal is smaller than a width of the other of the electrode and the wiring terminal, the one of the electrode and the wiring terminal being formed of a material having a high hardness, and
pressure is mutually applied to the semiconductor device and the substrate.
3. The semiconductor device mounting method of claim 1, wherein the electrode and the wiring terminal both include a plurality of members and widths of all of the one of the electrode and the wiring terminal

which are conductively connected to the other of the electrode and the wiring terminal are substantially the same.

4. A semiconductor device mounting method in which a semiconductor device having an electrode is mounted on a substrate having a wiring terminal, wherein

a width of the wiring terminal is smaller than a width of the electrode, and

pressure is mutually applied to the semiconductor device and the substrate so that the wiring terminal becomes embedded in a surface of the electrode.

5. A semiconductor device mounting method in which a semiconductor device having an electrode is mounted on a substrate having a wiring terminal, wherein

the width of the wiring terminal is smaller than a width of the electrode, the wiring terminal being formed of a material having a higher hardness than a hardness of the electrode, and

pressure is mutually applied to the semiconductor device and the substrate.

6. The semiconductor device mounting method of claim 4, wherein the wiring terminal crosses the electrode.

7. The semiconductor device mounting method of claim 1,

wherein microscopic conductive particles intervene between the electrode and the wiring terminal and pressure is mutually applied to the semiconductor device and the substrate.

8. The semiconductor device mounting method of claim 1, wherein an adhesive is disposed between the semiconductor device and the substrate and the adhesive is hardened in a pressurized state.

9. A semiconductor device mounting structure including a semiconductor device having an electrode and a substrate having a wiring terminal that is conductively connected to the electrode, wherein

a width of one of the electrode and the wiring terminal is smaller than a width of the other of the electrode and the wiring terminal, and

the one of the electrode and the wiring terminal is embedded in a surface of the other of the electrode and the wiring terminal.

10. The semiconductor device mounting structure of claim 9, wherein a cross-sectional shape of the one of the electrode and the wiring terminal decreases towards the other of the electrode and the wiring terminal.

11. The semiconductor device mounting structure of claim 9, wherein the one of the electrode and the wiring terminal further comprises a material having a higher hardness than a hardness of the other of the electrode and the wiring terminal.

12. The semiconductor device mounting structure of claim 9, wherein the electrode and the wiring terminal both include a plurality of members, and widths of all of the one of the electrode and wiring terminals which are conductively connected to the other of the electrode and the wiring terminal are substantially the same.

13. A semiconductor device mounting structure including a semiconductor device having an electrode and a substrate having a wiring terminal that is conductively connected to the electrode, wherein

a width of the wiring terminal is smaller than a width of the electrode, and

the wiring terminal is embedded in a surface of the electrode.

14. An electro-optical device comprising:

an electro-optical panel retaining an electro-optical substance;

a wiring substrate including a wiring terminal conductively connected to the electro-optical panel; and

a semiconductor device including an electrode conductively connected to the wiring terminal; wherein:

a width of one of the wiring terminal and the electrode is smaller than a width of the other of the wiring terminal and the electrode; and

the one of the wiring terminal and the electrode is conductively connected to the other of the wiring terminal and the electrode in a state where the one is embedded in a surface of the other.

15. An electro-optical device comprising:
an electro-optical panel retaining an electro-optical substance;
a wiring substrate including a wiring terminal conductively connected to the electro-optical panel; and
a semiconductor device including an electrode conductively connected to the wiring terminal; wherein:
a width of the wiring terminal is smaller than a width of the electrode;
and
the wiring terminal is embedded in a surface of the electrode.

16. A method of manufacturing an electro-optical device that includes an electro-optical panel retaining an electro-optical substance, a wiring substrate including a wiring terminal conductively connected to the electro-optical panel, and a semiconductor device including an electrode conductively connected to the wiring terminal, wherein

a width of one of the wiring terminal and the electrode is formed smaller than a width of the other of the wiring terminal and the electrode, and

the one of the wiring terminal and the electrode is conductively connected to the other of the wiring terminal and the electrode by embedding the one in a surface of the other.

17. A method of manufacturing an electro-optical device that includes an electro-optical panel retaining an electro-optical substance, a wiring substrate including a wiring terminal conductively connected to the electro-optical panel, and a semiconductor device including an electrode

conductively connected to the wiring terminal, wherein

a width of the wiring terminal is formed smaller than a width of the electrode, and

the wiring terminal is embedded in a surface of the electrode.

18. The semiconductor device mounting method of claim 2, wherein the electrode and the wiring terminal both include a plurality of members and widths of all of the one of the electrode and the wiring terminal which are conductively connected to the other of the electrode and the wiring terminal are substantially the same.

19. The semiconductor device mounting method of claim 5, wherein the wiring terminal crosses the electrode.

20. A semiconductor device mounting method comprising:
providing a semiconductor device with an electrode;
providing a substrate with a wiring terminal;
mounting the semiconductor device on the substrate; and
mutually applying pressure to the semiconductor device and the substrate so that one of the electrode and the wiring terminal becomes embedded in the other of the electrode and the wiring terminal.

21. The method of claim 20 wherein a width of a surface of the one of the electrode and the wiring terminal contacting the other of the electrode and the wiring terminal is smaller than the other of the electrode and the wiring

terminal.

22. The method of claim 21 wherein the hardness of the one of the electrode and the wiring terminal is greater than a hardness of the other of the electrode and the wiring terminal.

23. The method of claim 22 wherein the hardness of the one of the electrode and the wiring terminal is greater than a hardness of the other of the electrode and the wiring terminal.